METHOD OF IMAGE BINARIZATION USING HISTOGRAM MODELING

Abstract of Disclosure

Method of image binarization using histogram modeling, which combines spatial resolution expansion with binarization in a single integrated process using a combination of spatial expansion, histogram modeling, classification, and quantization. Each pixel of the input image is expanded into a higher resolution image, and a count of the number of times each distinct gray scale intensity value occurs in the input image is calculated from pixel values of the input image and then modeled with an approximate histogram that is computed as the sum of weighted modeling functions. The input pixel values are then classified using the modeling functions and the results of the pixel classification are used to quantize the high resolution gray scale image to create a binary output image.

Figures

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